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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,419	08/20/2001	Olivier F. Prache	EMA-00-119	5756

7590

08/10/2004

John Johnidis  
Emagin Corporation  
2070 Route 52  
Hopewell Junction, NY 12533

EXAMINER

CHOW, DOON Y

ART UNIT	PAPER NUMBER
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2675

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/933,419

**Applicant(s)**

PRACHE, OLIVIER F.

**Examiner**

Dennis-Doon Chow

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell et al. (EP 0365445) in view of Parks (5471225).

Regarding to claims 1-6 and 8-16, Bell discloses a method and an apparatus for controlling an active matrix OLED display. The display comprises an OLED and a plurality of memory cells in a pixel cell (see Figs. 1-2). Each memory cell comprises a bitline input, power input, a select input, a current driver having an output current level proportional to a bit position of a column data line bit coupled to a bitline input of a memory element (see Fig. 2), a pair of cross-coupled inverter (Figs. 3-4), and an access transistor (Figs. 3-4). The output of the current driver has a relationship of  $I_{out}=I_{base}*2^n$ , where  $I_{out}$  is output current,  $I_{base}$  is the interval current unit, and  $n$  is a bit position (see Fig. 2 and column 3, line 53 to column 4, line 37). Bell further discloses the cross-coupled inverters are formed by cross coupled MOS transistor pairs and the access transistor is a MOS transistor.

Bell does not disclose the memory cells are static memory cells.

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Parks, in the same display field, disclose using a static memory cell for storing data for a pixel cell.

In light of Parks, it would have been obvious to one of ordinary skill in the art to use static memory cells in each pixel cell of the Bell's display. This would have been obvious because Bell does not disclose using any specific memory cells, and the static memory cell can rid a processor of having to continuously refresh the display (see Abstract, Parks).

Regarding to claims 7 and 16, Bell discloses the current driver is a MOS transistor, but fails to disclose the MOS transistor is a P-type MOS transistor. However, it is consider a matter of obvious design choice to use a P-type MOS transistor in Bell's current driver instead of a N-type MOS transistor because using the P-type MOS transistor instead of the N-type MOS transistor does not provide any unexpected result.

### ***Response to Arguments***

3. Applicant's arguments filed 5/25/04 have been fully considered but they are not persuasive.

Applicant argues that Bell does not disclose "... a current driver having an output current level proportional to a bit position of a column data line bit coupled to a bitline input of a memory element ..." or the claimed "... relationship:

$I_{out} = I_{base} * 2^n$  ... ". The examiner disagrees with applicant's arguments. As shown in Fig. 2, Bell discloses applying a signal having a plurality of bits to a pixel element. Obviously, each of the plurality of bits has different value. For example,

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the most significant bit has a value larger than the least significant bit. Therefore, it is obvious that an output current level of Bell current driver inherently proportional to a bit position of the plurality of bits, and have a relationship of  $I_{out} = I_{base} * 2^n$  where:  $I_{out}$  is output current/the predetermined current of the current driver,  $I_{base}$  is the interval current unit for the gray scale step, and  $n$  is the bit position.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis-Doon Chow whose telephone number is 703-305-4398. The examiner can normally be reached on 8:30-6:00, Alternate Monday off.

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The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

D. Chow  
August 5, 2004



DENNIS-DOON CHOW  
PRIMARY EXAMINER